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METHOD OF OPERATION  
TRUNK CIRCUIT

Three Wire Incoming To Zero Operator - Arranged To Relight Lamp If Coin Is Not Released - Special "A" Switchboard - Power Driven Machine Switching System.

GENERAL DESCRIPTION

1. This circuit is used as an incoming three wire trunk to the zero or intercepting operator. It is selected by a district or office selector, and terminates in a jack at the zero or intercepting operator's position. It is used with zero or intercepting operator's cord circuit, whose sleeves are connected to battery through a maximum resistance of 210 ohms. This circuit is arranged for number checking.

DETAILED DESCRIPTION

2. When the terminals of this line are seized by a district or office selector, the L relay operates in a circuit from battery through its inductive winding, break contact of the CO relay, tip terminal, through the associated district selector circuit, ring terminal, break contact of the CO relay to ground through the non-inductive winding of the L relay. The operation of the L relay lights the line lamp, and operates the TB relay. The TB relay operated, (a) connects a ringing tone from the machine ringing current through a .02 m.f. condenser, to the T terminal of the line as an indication that ringing current is being applied to the trunk, (b) connects direct ground, or ground through the 100 ohm resistance, (depending upon whether the number checking feature is provided), to the S terminal in the district or office multiple, making it test busy to hunting selectors.

3. When the zero or intercepting operator inserts the plug of a cord in the trunk jack, the CO relay operates. The operation of the CO relay disconnects the ringing tone circuit from the calling line and opens the circuit through the L relay, which releases. The release of the L relay opens a circuit through the trunk lamps, extinguishing them. The operation of the CO relay, transfers the holding circuit for the winding of the TB relay, to battery on the make contact of the CO relay. The TB relay is made slow in releasing to prevent its release while the holding circuit is being transferred.

4. If the plug of the cord is withdrawn from the trunk jack after the receiver at the calling station is replaced on the switchhook, the CO relay releases, in turn, releasing the TB relay. The TB relay released, disconnects ground from the S lead, releasing the district or office selector.

5. If the plug of the cord is withdrawn from the trunk jack before the receiver at the calling station is replaced on the switchhook, the CO relay releases and closes a circuit operating the L relay in series with the calling sub-station. The L relay operated relights the trunk lamps and closes the

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holding circuit for the TB relay. The TB relay is designed to be slow releasing so that it will remain operated during the release of the CO relay and the operation of the L relay, and thus maintain a ground on the S lead to hold the district office selector.

6. Provisions are made for number checking by connecting the sleeve of the trunk multiple jack through a .02 m.f. condenser, to the MB relay. Also, direct ground on the armature is replaced by ground through a 100 ohm resistance. This allows the checking tone from the sleeve of the zero or intercepting operator's cord circuit to pass on to the sleeve of the district or office multiple, while the checking test is being made.

7. The circuit is arranged so that if the operator disconnects without collecting or returning the coin, the CO relay releases and the L relay operates in series with the coin magnet at the subscribers station. The L relay operated functions as described in paragraph 5.

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### CIRCUIT REQUIREMENTS

THE READJUST REQUIREMENTS SHOWN BELOW ARE FOR MAINTENANCE USE ONLY

	<u>OPERATE</u>	<u>NON-OPERATE</u>	<u>RELEASE</u>
178-AG (MB)	Special requirements to insure slow release. Readj. .030 amp. Test .032 amp. W.C.C. .062 amp.		Readj. .002 amp. Test .0019 amp.
NOTE:- To prevent chattering, the "make-before-break" spring combination of this relay shall be so adjusted that the spring, which normally makes on the back contact, will give the greatest possible contact pressure against the back contact.			
B267 (L)	Special requirements to insure fast operation. Readj. .010 amp. Test .0105 amp. W.C.C. .0108 amp.		Readj. .0049 amp. Test .0046 amp. W.C.C. .0042 amp.
E757 (CO)	Readj. .053 amp. Test .068 amp. W.C.C. .083 amp.	Readj. .036 amp. Test .034 amp.	

ENG.--AER-JO.  
2/27/22.

CHK'D.--WCD-CWP.

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